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AUTHOR	Chase, Shirley A.; And Others
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ABSTRACT

As part of the series of studies assessing micro-teaching and video recording in vocational and technical education, this study tested the feasibility of applying these techniques in the preparation of vocational teacher educators. Conducted as a simulated workshop for prospective teacher educators, the study involved 12 prospective teacher educators who were assigned to either individual or group supervisory conference techniques, 12 preservice teachers, and high school students who participated in the micro-teaching sessions. Each teacher in the study taught a micro-lesson to four high school students. The teacher educator then viewed the videotape of the micro-lesson and conducted a supervisory conference with the teacher. Finally, the master teacher educator viewed the videotape of the teacher-teacher educator conference and conducted a supervisory conference with the teacher educators, either on an individual basis or with a group of three. Based on analysis of the data collected from the above sessions and from the teacher educators' satisfaction and evaluation forms, no significant difference was found to exist between the two groups in effectiveness on supervisory performance or expressed satisfaction. However, the reactions and opinions of the teacher educators reflected strong support for the use of micro-supervision in their preparation. (Author/JS)

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Research and Development Series No. 58

Assessment of Micro-Teaching and Video Recording in Vocational and Technical Teacher Education. Phase IX--

Micro-Supervision

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RESEARCH AND DEVELOPMENT SERIES NO. 58

ASSESSMENT OF MICRO-TEACHING AND VIDEO RECORDING IN VOCATIONAL AND TECHNICAL TEACHER EDUCATION: PHASE IX--

MICRO-SUPERVISION

SHIRLEY A. CHASE

CHARLES R. DOTY

CALVIN J. COTRELL

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The Center for Vocational and Technical Education
The Ohio State University
1900 Kenny Road
Columbus, Ohio 43210

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PREFACE

The Center has been engaged in a series of studies in the project "Assessment of Micro-Teaching and Video Recording in Vocational and Technical Education" to find more effective and efficient ways of using these two techniques in programs of vocational teacher education. This report describes the ninth in the series, a feasibility test of using micro-supervision, with micro-teaching and video recording, as a means of improving the preparation of vocational teacher educators. It is hoped that vocational and technical teacher educators and researchers will find the results of the study interesting and useful.

We wish to acknowledge the following persons from The Center for their services in completing the study: Dr. Calvin J. Cotrell, principal investigator; Dr. Charles R. Doty, associate investigator; and Shirley A. Chase, coordinator of the study.

Appreciation for the assistance of the following reviewers is also acknowledged: Dr. Theodore J. Cote, Chairman of Industrial Education, Temple University; Dr. Mary Helen Haas, Professor of Home Economics Education, Colorado State University; Dr. Doris E. Manning, Professor of Home Economics Education, University of Arizona; and Dr. Ronald Daugherty, Research and Development Specialist, The Center for Vocational and Technical Education, The Ohio State University.

Robert E. Taylor
Director
The Center for Vocational
and Technical Education

FOREWORD

This report is the ninth in a series conducted from September, 1967, to October, 1969 at The Center for Vocational and Technical Education. Conducted at The Center as a simulated workshop experience for prospective vocational teacher educators, the study was a feasibility test of the applicability of micro-supervision, with micro-teaching and video recording, in the preparation of vocational teacher educators.

Appreciation is extended to Dr. Richard Wilson, professor, Department of Agricultural Education, The Ohio State University, and Dr. Anna Gorman, research and development specialist, The Center for Vocational and Technical Education, who served as master teacher educators in the study. The investigators wish to acknowledge the contributions of the members of the graduate seminar for teacher educators, "The Role of the College Supervisor," conducted by Dr. L. O. Andrews at The Ohio State University.

Great appreciation is extended to the following persons who volunteered their time to participate as prospective teacher educators in the study:

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Calvin J. Cotrell
Charles R. Doty
Shirley A. Chase

TABLE OF CONTENTS

	Page
PREFACE	*iii*
FOREWORD	*v*
LIST OF FIGURES	*ix*
SUMMARY	*xi*
CHAPTER	
I. BACKGROUND OF THE STUDY	3
The Series of Studies	3
Purpose of the Study	4
Research Questions	4
Review of Related Literature	4
II. PROCEDURES IN THE STUDY	7
Participants	7
Supervisory Conference Techniques	8
Experimental Design	8
Measurement Instruments	8
Conduct of the Study	9
Procedures for Data Collection and Analysis	11
III. RESULTS OF THE STUDY	13
Effects on Supervisory Performance	13
Effects on Expressed Satisfaction	13
Teacher Educators' Reactions	14
Feasibility of Micro-Supervision	14
IV. CONCLUSIONS AND RECOMMENDATIONS	17
Conclusions	17
Recommendations	17
REFERENCES	19
GLOSSARY OF TERMS	21
APPENDIX A - Critique Forms--Micro-Teaching Sessions.	23

Page

APPENDIX B - Critique Forms--Micro-Supervision Sessions 31

APPENDIX C - Teacher Educator Forms 37

APPENDIX D - Tables 45

1. Pretest Mean Raw Scores and Standard Deviations--Critique Forms on Supervisory Skills 47

2. Analysis of Variance--Critique Forms on Supervisory Skills, Pretest Data 48

3. Posttest Mean Raw Scores, Adjusted Means, and Standard Deviations--Critique Forms on Supervisory Skills 49

4. Analysis of Covariance--Critique Forms on Supervisory Skills, Posttest Data 50

5. Paired t-Test--Critique Forms on Supervisory Skills 51

6. Mean Scores and Standard Deviations--Satisfaction Form 52

7. Analysis of Variance--Satisfaction Form 52

LIST OF FIGURES

FIGURE		Page
1.	Experimental Design	9
2.	Micro-Supervision Cycle	12
3.	Change in Scores on Critique Forms	15

SUMMARY

As part of the series of studies assessing micro-teaching and video recording in vocational and technical education, the study reported herein was designed as a feasibility test of the application of these techniques in the preparation of vocational teacher educators. The study was conducted at The Center as a simulated workshop for prospective teacher educators. Involved in the study were two master teacher educators, 12 prospective teacher educators, 12 preservice teachers, and high school students who participated in the micro-teaching sessions.

The 12 teacher educators were assigned to one of two supervisory conference techniques: individual or group. A micro-supervision cycle, based on the concept of micro-teaching and incorporating video recording, was designed and repeated five times. The teachers in the study each taught a micro-lesson to a group of four high school students. The teacher educator viewed the videotape of the micro-lesson and conducted a supervisory conference with the teacher. The master teacher educator viewed the videotape of the teacher-teacher educator conference and conducted a supervisory conference with the teacher educators, either on an individual basis or with a group of three.

Six critique forms were used in the study. The teachers and teacher educators made use of three critique forms on teaching skills as learning devices for the teachers. The teachers, teacher educators, and master teacher educators used three critique forms on supervisory skills as learning tools and as data-gathering devices for the statistical analysis in the study. The teacher educators also completed a satisfaction form and an evaluation form at the end of the fifth micro-supervision cycle.

The statistical analysis indicated that no significant differences existed between the two groups in effectiveness on supervisory performance or expressed satisfaction. The reactions and opinions of the teacher educators reflected strong support for the use of micro-supervision, with micro-teaching and video recording, in their preparation. They also indicated their satisfaction with the critique forms as learning tools and their interest in opportunities for both individual and group supervisory conferences with master teacher educators.

ASSESSMENT OF MICRO-TEACHING AND VIDEO RECORDING IN VOCATIONAL AND TECHNICAL TEACHER EDUCATION: PHASE IX--

MICRO-SUPERVISION

CHAPTER I

BACKGROUND OF THE STUDY

As the need increases for more and better prepared teachers in the field of vocational and technical education, a greater burden is placed on vocational teacher education programs. The crux of the problem of providing effective teacher education programs for preservice and inservice teachers may be the educational preparation and qualifications of the teacher educators. To cope with the increasing pressures for efficiency and effectiveness, vocational teacher education personnel must be adequately prepared to supervise both new and experienced vocational teachers.

Now that resources are available, college supervision, a key facet of teacher education programs, lends itself to radical revamping, according to Joyce (1967). In a study using the critical incident technique to determine the effectiveness and ineffectiveness of certain supervisory techniques, Nicklas (1959) concluded that the individual conference was considered the best-liked supervisory technique by both supervisors and student teachers. Just as teachers practice teaching skills, teacher educators should have opportunities for practicing their supervisory skills. Therefore, the concept of using micro-teaching and video recording at the higher level of preparing teacher educators was conceived. Although teacher educators readily perceive the usefulness of micro-teaching and video recording when working with preservice and inservice teachers, they do not ordinarily use these techniques as media for improving their own performance and behavior during supervisory conferences with teachers.

THE SERIES OF STUDIES

Since 1967 The Center for Vocational and Technical Education has been engaged in a series of studies to find more effective and efficient ways of using micro-teaching and video recording in programs of vocational teacher education. Eight previous studies were conducted to test the feasibility of video recording as a feedback device in teacher education and included variations on micro-teaching, learner populations, and the evaluation instruments. Ninth in this series, the present study incorporated the results of the prior studies and was designed as a test of these innovations in the preparation of vocational teacher educators.

PURPOSE OF THE STUDY

In view of the need to increase efficiency in vocational teacher education, the study was designed to test the feasibility of micro-supervision, using micro-teaching and video feedback, in a simulated workshop for teacher educators. Specifically, the study was concerned with the following objectives:

1. To design and test a prototype program of micro-supervision.

2. To compare the use of group and individual feedback techniques for effectiveness in changing the supervisory performance of teacher educators.

3. To develop an instrument on supervisory skills to be used as an instructional aid and a tool for self-evaluation for teacher educators and as a critique guide for master teacher educators.

4. To amass a library of videotapes of supervisory conferences.

RESEARCH QUESTIONS

The following questions were formulated for investigation:

1. Are there significant differences in the supervisory performance of teacher educators participating in individual conferences with a master teacher educator and those involved in group conferences?

2. Are there significant differences in the expressed satisfaction of teacher educators participating in individual conferences and those involved in group conferences?

3. What are the attitudes and opinions of the participants regarding micro-supervision?

4. Is a workshop using the micro-supervision technique feasible in the preparation of teacher educators?

REVIEW OF RELATED LITERATURE

Since the conference is considered of great importance to the function of supervisors, a review of the literature was conducted to determine what skills are necessary for carrying on supervisory conferences. In addition to the appropriate literature in education, research studies and professional writings in such

other fields as guidance and counseling, industrial management, and the behavioral sciences were perused.

Research found helpful in planning this study and designing the critique forms was the work conducted by Dirks, Elliott, Lowe, and Nelson (1967); Ivey, Normington, Miller, Morrill, and Haase (1968); and Aubertine (1969); along with previous studies in this series (Cotrell and Doty, 1971).

CHAPTER II

PROCEDURES IN THE STUDY

To obtain evidence to answer the questions central to the purpose of the study, during the Summer of 1969 a laboratory program was organized at The Center for Vocational and Technical Education to provide a vehicle for testing the experimental supervisory conference techniques under simulated conditions. As the program was conducted, data for research purposes were collected.

In the simulated workshop for the teacher educators, during a two-week period two groups of teacher educators, with each group experiencing a different supervisory conference technique, engaged in five micro-supervision cycles (See Glossary for definitions of terms used in the study). The micro-supervision cycle involved a five-step process: 1) teacher teaches a micro-lesson, 2) teacher educator views and analyzes a videotape of the lesson, 3) teacher and teacher educator meet to confer on the lesson and the teaching performance, 4) master teacher educator views and analyzes a videotape of the teacher-teacher educator conference, and 5) teacher educator and master teacher educator meet to confer on the supervisory conference and the teacher educator's performance. All of the teaching sessions and supervisory conferences were video recorded for feedback and data collection procedures and to build a library of instructional models of teaching and supervisory skills.

PARTICIPANTS

All participants were required to sign a legal waiver permitting The Center to use the video recordings prepared in the study for instructional and research purposes.

Teacher educators. Vocational education teachers in The Ohio State University area during the Summer of 1969 were contacted regarding possible participation in the study. Of those available, 12 were chosen to serve as the prospective teacher educators in the study. Selection criteria included interest in pursuing a career as a teacher educator and developing skills in supervision and a minimum of three years of experience as a vocational education teacher.

Master teacher educators. The two teacher educators who participated in the study as the master teacher educators had extensive experience in vocational and technical education as teachers and teacher educators.

Teachers. Twelve preservice teachers representing several of the service areas of vocational and technical education volunteered to participate in the study.

Students. High school students from the Columbus area who had completed either the eleventh or twelfth grade were employed to serve as the students in the micro-teaching sessions.

SUPERVISORY CONFERENCE TECHNIQUES

The search of related literature revealed that many writers judged conduct of the supervisory conference to be the most important single skill of supervision. Therefore, the skills involved in conducting a supervisory conference were selected for the teacher educators to practice and develop. The three skills selected for emphasis were those involved in: 1) the introduction of the conference, 2) the body of the conference, and 3) the closure of the conference.

The two supervisory conference techniques under consideration in the study were: 1) individual conferences between a master teacher educator and a teacher educator and 2) group conferences between a master teacher educator and a group of three teacher educators. The supervisory conferences between the teachers and teacher educators were all conducted on an individual basis.

EXPERIMENTAL DESIGN

The study was based on a pretest-posttest design. The 12 teacher educators who participated in the study were assigned to one of the two supervisory conference groups, six in a group. Assignment to treatment group was dependent upon the teacher educator's availability and the schedule for the conduct of the study (See Figure 1).

MEASUREMENT INSTRUMENTS

Several instruments which served as instructional guides and evaluative devices were utilized in the study. For use in the micro-teaching sessions, three critique forms on the teaching skills of introducing a lesson, oral questioning, and lesson closure were adapted from previous studies in this series (See Appendix A).

Group 1	R	O_1	O_2	X_1	O_3	X_2	O_4	X_3	O_5
Group 2	R	O_1	O_2	X_1	O_3	X_2	O_4	X_3	O_5

R = Randomization of teacher educators to groups

O_1 = Pretest, consisting of evaluation of first supervisory conference with teacher

O_2, O_3, O_4 = Supervisory conferences with teacher

O_5 = Posttest, consisting of evaluation of last supervisory conference with teacher

X_1-X_3 = Treatment, consisting of supervisory conference with master teacher educator

Figure 1. Experimental Design

For use in the supervisory conferences, three critique forms were developed covering the supervisory skills involved in the introduction, body, and closure of a conference. Before use, the three forms were reviewed by several consultants. Also, a group of prospective teacher educators enrolled in a supervision seminar at The Ohio State University tested the instruments by rating previously prepared videotapes of supervisory conferences. Their suggestions for revision were synthesized and incorporated into the final versions of the three critique forms (See Appendix B). The forms included ratings on whether the teacher educator did or did not accomplish each task and on the degree of the accomplishment, yielding scores on an accomplished scale and a degree of accomplishment scale. The scores on the two scales ranged from 0-1 on the accomplished scale (0 = did not accomplish, 1 = did accomplish) and 0-5 on the degree of accomplishment scale (0 = did not accomplish, 1 = very poor, 2 = poor, 3 = average, 4 = good, 5 = excellent).

In addition, a 15-item satisfaction form and an 8-item evaluation form were developed to obtain information on the teacher educators' feelings of satisfaction with their experiences and their opinions and reactions concerning the procedures they followed (See Appendix C).

CONDUCT OF THE STUDY

The 12 teachers, 12 teacher educators, and the two master teacher educators who participated in the study met at The Center

to receive the necessary orientation to and training in the procedures and the use of the measurement instruments and the video equipment.

Orientation sessions. Using videotaped instructional models, members of The Center staff familiarized the 12 teacher educators with the three teaching skills being emphasized in the micro-teaching portion of the study (introducing a lesson, oral questioning, and lesson closure), including training in the use of the three critique forms. At a later date, each teacher educator met with the teacher he was to supervise in the study to present the three teaching skills, using videotaped instructional models, and to prepare them to use the critique forms.

The Center staff also presented to the 12 teachers information on the three supervisory skills being emphasized in the micro-supervision portion of the study (introduction, body, and closure of a conference) to aid them in using the critique forms to rate their teacher educator's supervisory performance.

At this time, the two master teacher educators were also familiarized with the three supervisory skills and trained in using the critique forms. After the pretest data were collected, the master teacher educators each trained their six prospective teacher educators in the three supervisory skills and acquainted them with the critique forms.

Use of the critique forms. Extensive training in the use of the six critique forms was provided during the study, since these forms served as instructional guides and evaluative and data-gathering devices. In the orientation and training sessions, the participants became familiar with the appropriate critique forms and learned how to use them by viewing videotapes of teaching or supervisory performances and actually using the critique forms to rate the performances. The 12 teachers and 12 teacher educators were given more than one hour's training on the critique forms. The master teacher educators, whose ratings were used in the data analysis, underwent more intensive practice sessions with the critique forms to establish inter-rater reliability. The two master teacher educators viewed 10 videotaped supervisory conferences, rated them by using the critique forms, and compared their ratings. When agreement was reached, the master teacher educators were ready to rate the 24 pretest and posttest videotapes for the study.

Micro-supervision cycle. Each teacher taught a five-minute micro-lesson, which was videotaped, to a group of four high school students. Immediately after, the teacher and the high school students completed the critique form on the particular teaching skill being emphasized. The students left the room, and the teacher had a 20-minute wait while the teacher educator viewed the videotape

of the lesson, completed the critique form, reviewed the forms completed by the teacher and the students, and planned the supervisory conference. The conference between the teacher and the teacher educator, which was also videotaped, was a 15-minute session during which the teaching performance was discussed and the next micro-teaching session was planned. The teacher educator had available during the conference the videotape and the completed critique forms to aid in the critique and analysis of the lesson. At the end of the conference, the teacher and the teacher educator completed the three critique forms on conducting a supervisory conference. In preparation for the supervisory conference to be held the next day with the teacher educator, the master teacher educator viewed the videotape of the conference, completed the critique forms, reviewed the forms completed by the teacher and the teacher educator, and planned the supervisory conference.

The next day, each of the six teacher educators who were involved in the individual supervisory conference technique had a private conference with the master teacher educator. The conference, which was videotaped, was a 20-minute session during which the teacher educator's supervisory performance was discussed. The master teacher educator had available during the conference the videotape and the completed critique forms to aid in the analysis and review of the supervisory performance of the teacher educator.

The six teacher educators who were involved in the group supervisory conference technique met with their master teacher educator in groups of three to have a group supervisory conference. The conference, which was videotaped, was an hour long and included a discussion and analysis of the supervisory performance of the three teacher educators. The master teacher educator also had available to him the videotapes and the completed critique forms. The micro-supervision cycle was completed five times during the study (See Figure 2).

Equipment and facilities. Three rooms at The Center were each equipped with two half-inch video recording systems since during the supervisory conferences one system was needed for playing portions of videotapes and the other for recording the conference. A one-inch video recording system was used to record the master teacher educator-teacher educator supervisory conference.

All participants were trained in the operation of the video equipment, and technicians were available for assistance.

PROCEDURES FOR DATA COLLECTION AND ANALYSIS

Three types of data were collected for analysis in the study. Pretest data consisted of the two master teacher educators' independent ratings on the three critique forms of the videotapes

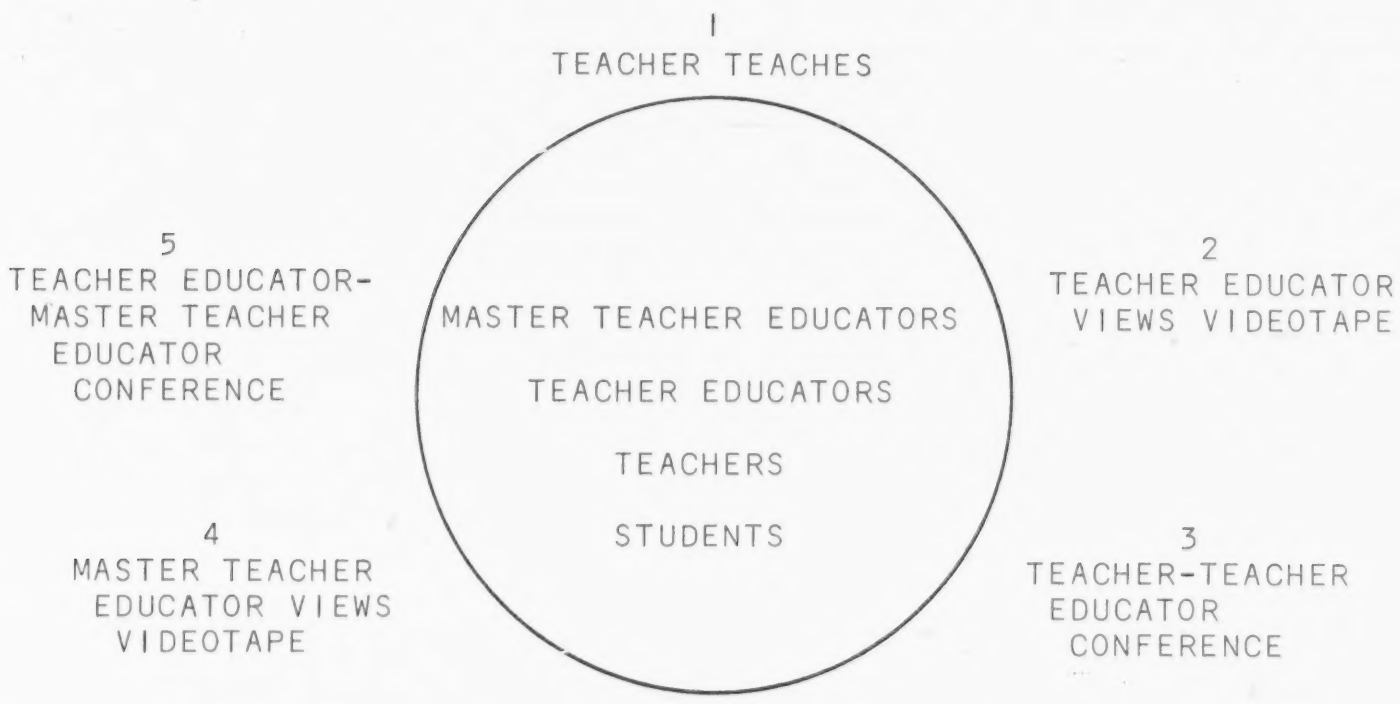

Figure 2. Micro-Supervision Cycle

of the 12 teacher educators' first supervisory conferences (teacher-teacher educator conferences). As stated previously, the first micro-supervision cycle was conducted before the teacher educators had received instruction in the three supervisory skills.

The posttest data consisted of the two master teacher educators' independent ratings, on the three critique forms, of the videotapes of the 12 teacher educators' last (fifth) supervisory conferences. In addition, after the fifth micro-supervision cycle, the 12 teacher educators completed the satisfaction and evaluation forms.

Analyses of variance and covariance were computed for all major tests of significance to answer questions relating to supervisory performance and teacher educators' expressed satisfaction. Decisions of whether or not to reject the null hypotheses were made at the .05 level of significance. Though not appropriate for statistical analysis, the data collected on the evaluation form were presented in summary form to answer the question relative to the participants' opinions and reactions. The question of feasibility was decided after consideration of the results of the statistical analyses, a paired t-test, and the reactions of the participants and the investigators.

CHAPTER III

RESULTS OF THE STUDY

The results of the data collection and analysis are presented in this chapter. Included are the findings relative to the effects of the two supervisory conference techniques on the supervisory performance of the teacher educators, the effect of the type of supervisory conference technique on the teacher educators' expressed satisfaction, the teacher educators' opinions and reactions concerning their experiences, and the feasibility of micro-supervision.

EFFECTS ON SUPERVISORY PERFORMANCE

The first research question was stated in null hypothesis form and tested by means of analysis of variance and covariance. An analysis of variance test was first computed on the pretest data--the ratings of the two master teacher educators on the critique forms on the three supervisory skills--to insure that the pretest data fell within the limits of variance required for the subsequent analysis of covariance. The test was computed on the pretest mean raw scores of both scales, accomplished and degree of accomplishment, for each of the supervisory skills and for combined mean raw scores on the three skills (Dixon, 1967). Since significant differences were found between the groups only on the accomplished scale on the closure of a conference skill, the pretest data were considered suitable for the analysis of covariance (See Appendix D, Tables 1 and 2).

A series of eight analyses of covariance was performed on the posttest data with the pretest as the covariate to determine if there were any differences between the two supervisory conference technique groups on the accomplished and degree of accomplishment scales on the three critique forms and the composite scores of the three skills. No significant differences in effectiveness on supervisory performance were found to exist between the two supervisory conference technique groups on either of the scales (See Appendix D, Tables 3 and 4).

EFFECTS ON EXPRESSED SATISFACTION

The second research question was stated in null hypothesis form and tested by means of analysis of variance. The test was

computed on the mean scores on the degree of accomplishment scale of the satisfaction form, which had been completed by the teacher educators at the end of the simulated workshop experience (See Appendix D, Table 6). As the mean scores indicate, both groups of teacher educators judged the experience to be satisfactory, achieving mean scores of over 4 on a scale of 0-5. The results of the analysis of variance revealed no significant differences in effects on expressed satisfaction between the two supervisory conference technique groups (See Appendix D, Table 7).

TEACHER EDUCATORS' REACTIONS

The 12 teacher educators completed the 8-item evaluation form at the end of the simulated workshop experience. In four of the questions on the form the teacher educators expressed positive attitudes toward micro-teaching, video recording, and the critique forms on supervisory skills. They indicated that the critique forms were valuable tools and could have been used more by the master teacher educators. The teacher educators also expressed positive feelings toward their experiences with the supervisory conference techniques and suggested that using a combination of the two techniques in micro-supervision sessions would be extremely advantageous. One other suggestion made by the teacher educators was that they be allowed to view the videotapes of their own performance in the conferences with the teachers before meeting with the master teacher educator.

FEASIBILITY OF MICRO-SUPERVISION

A paired t-test was computed on the degree of accomplishment scale scores to test for significant gain within the groups from their first micro-supervision session to their last. The test revealed that the teacher educators who experienced the group supervisory conference technique had gained significantly on all three supervisory skills and the group that experienced the individual supervisory conference technique had gained significantly on the second supervisory skill, body of a conference. Both groups gained significantly in terms of their composite scores (See Appendix D, Table 5). Figure 3 presents graphs of the pretest to posttest gain scores.

In view of these findings, the investigators believed that a workshop using the micro-supervision technique was feasible for use in the preparation of teacher educators.

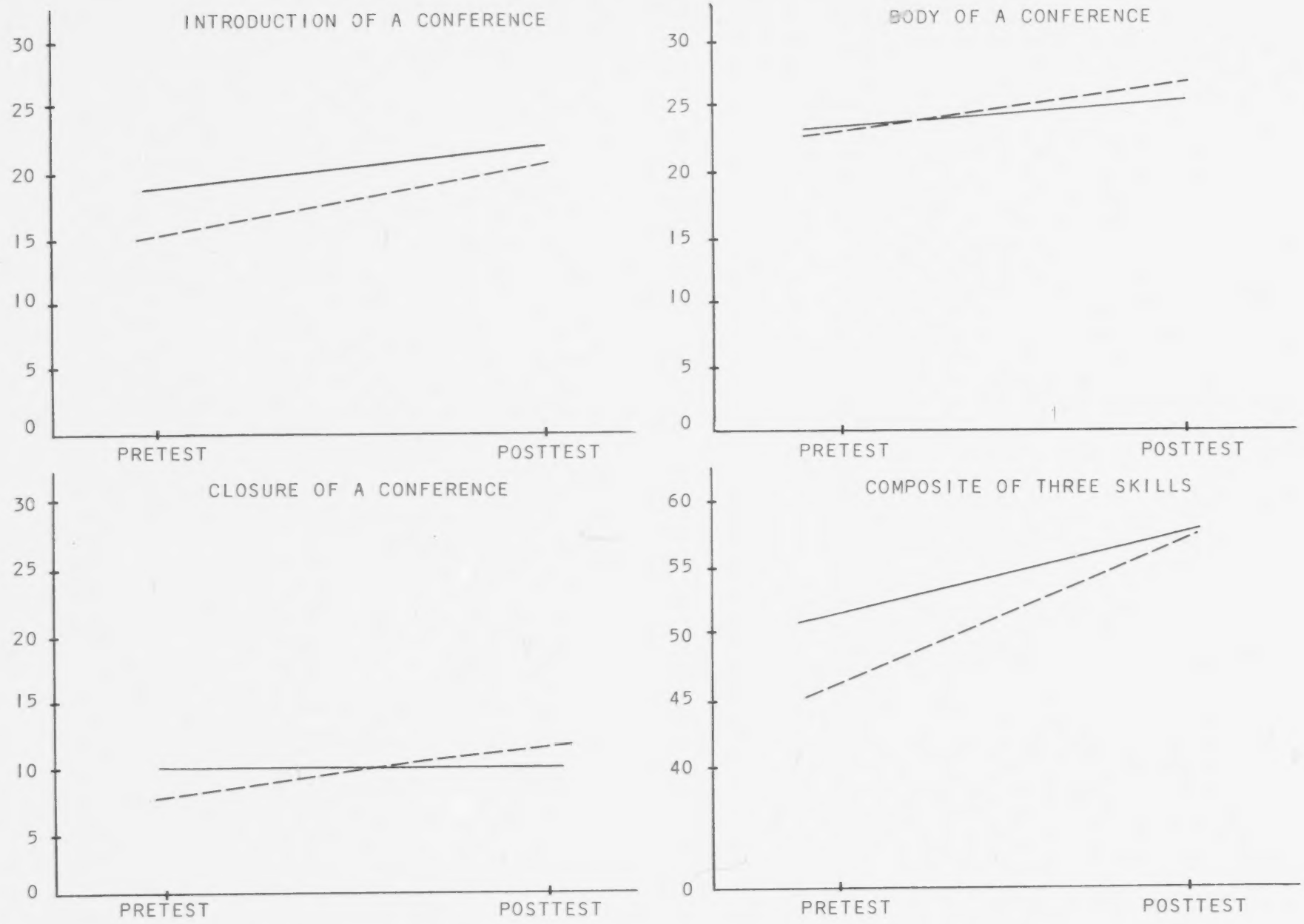

Figure 3. Change in Scores on Critique Forms--Degree of Accomplishment Scale

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

As part of the series of studies conducted at The Center for Vocational and Technical Education to assess micro-teaching and video recording in vocational and technical teacher education, the study reported here was designed to determine the feasibility and potential applicability of micro-supervision in a simulated workshop for teacher educators. An individual conference technique with a master teacher educator was compared with a group conference technique (groups of three) with a master teacher educator, and no significant differences were found between both techniques in terms of effect on the teacher educators' supervisory performance and expressed satisfaction. The 12 teacher educators expressed positive attitudes toward their experience at the end of the workshop.

The following conclusions and recommendations were based upon the conduct and results of the study.

CONCLUSIONS

1. Either the individual or the group supervisory conference technique would be feasible and equally effective in improving the supervisory skills of preservice teacher educators.

2. A combination of the two supervisory conference techniques would be a more satisfactory experience for preservice teacher educators.

3. The three critique forms on supervisory skills could serve as effective guidelines in the supervision of preservice teacher educators.

4. Preservice teacher educators should find micro-supervision helpful in developing the supervisory skills involved in this study.

RECOMMENDATIONS

1. Within the micro-supervision format, teacher educators should have opportunities for both individual and group conferences with their supervisors.

2. Extensive use should be made of critique forms on the skills of supervision as teaching tools and instructional guidelines in preparing vocational teacher educators.

3. Opportunities should be provided for the teacher educators to view the videotapes of their performance in supervisory conferences with teachers before their conferences with the master teacher educators.

4. Micro-supervision should be made available to all persons who are responsible for assisting teaching personnel in the improvement of i struction. Included would be supervising teachers, local and area supervisors, and state level teacher educators.

5. Institutes on micro-supervision should be provided to prepare directors of national, regional, and statewide workshops for teacher educators.

6. Critique forms should be developed for priority teacher education supervisory skills in addition to those used in this study.

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GLOSSARY OF TERMS

Micro-teaching. A scaled-down teaching session, five to 10 minutes of teaching to four or five students, in which the teacher participates in the full sequence of the micro-teaching cycle: plan, teach, critique (feedback), replan, reteach, critique.

Micro-supervision. A scaled-down experience in supervision which employs the principles of micro-teaching in the preparation of teacher educators. In this study, micro-supervision involved the practice of the skills of conducting supervisory conferences.

Supervisory conference. A meeting held between a teacher and teacher educator to discuss the teacher's performance in a teaching session which the teacher educator observed. In this study, supervisory conferences were also held between the master teacher educator and the teacher educators to discuss their performance in conferences with teachers.

Teacher educator. A person on a university staff who is responsible for the preservice preparation of teachers and the inservice education of teachers in the field. The teacher educators in this study had had teaching experience but little or no supervisory experience.

Master teacher educator. For the purposes of this study, a teacher educator with extensive experience in vocational teacher education.

Video feedback. The procedure used in the study which involved preparing videotape recordings of all micro-teaching and micro-supervision sessions to provide opportunities for participants to view replays of the sessions during the critique and analysis portion of the micro-teaching cycle and to evaluate change in teaching and supervisory performance.

APPENDIX A

CRITIQUE FORMS--MICRO-TEACHING SESSIONS

INTRODUCING A LESSON

ORAL QUESTIONING

LESSON CLOSURE

Teacher's Name _____ Number _____

Tape No. _____ Teach No. _____

Rater (TE,T,S) _____

CRITIQUE FORM
INTRODUCING A LESSON

The introduction phase of a lesson "sets the stage" for student participation in the activity which is to follow. The introduction should motivate the student to accomplish the objectives of the lesson.

The following items will be used to evaluate the teacher's introduction of the lesson. If the teacher did not accomplish the item, put an X in the box below DID NOT ACCOMPLISH. If the teacher did accomplish the item, put an X in the box which best describes HOW WELL the teacher ACCOMPLISHED the item.

Did the teacher in the introduction:

	DID NOT ACCOMPLISH	DEGREE OF ACCOMPLISHMENT				
		VERY POOR	POOR	AVERAGE	GOOD	EXCELLENT
1. establish with the students the objective of the lesson? (e.g., students were aware of what the objective was in terms of their behavior--to be able to write, speak, solve)	☐	☐	☐	☐	☐	☐
2. explain in terms of student needs why the objective was important? (e.g., skill development, future job, personal development)	☐	☐	☐	☐	☐	☐
3. explain how the students could proceed toward accomplishment of the objective and how to recognize when they had achieved it? (e.g., process to follow to be able to solve problems, apply information, etc.)	☐	☐	☐	☐	☐	☐
4. relate the lesson to the students' prior knowledge, experience or background? (e.g., provided continuity)	☐	☐	☐	☐	☐	☐
5. provide opportunity for student participation? (e.g., allowed time for student questions and comments)	☐	☐	☐	☐	☐	☐

	DID NOT ACCOMPLISH	DEGREE OF ACCOMPLISHMENT				
		VERY POOR	POOR	AVERAGE	GOOD	EXCELLENT
6. show enthusiasm for the lesson? (e.g., expressed enthusiasm by speech, gestures or facial expression)	☐	☐	☐	☐	☐	☐
7. make the lesson interesting by use of instructional aids or other techniques? (e.g., used chalkboard, charts, illustrations)	☐	☐	☐	☐	☐	☐

Teacher's Name _____ Number _____

Tape No. _____ Teach No. _____

Rater (TE,T,S) _____

CRITIQUE FORM
ORAL QUESTIONING

A question is an act or instance of asking. Oral questioning by the teacher promotes direct mental activity on the part of the learner, providing opportunity for the learner to be actively involved in the lesson. The teacher's effective use of oral questioning affords the student more opportunities to express ideas and provides an environment conducive for creative thinking.

The following items will be used to evaluate how the teacher uses questions in a lesson. If the teacher did not accomplish the item, you will put an X in the box below DID NOT ACCOMPLISH. If the teacher did accomplish the item, put an X in the box which best describes HOW WELL the teacher ACCOMPLISHED the item.

	DID NOT ACCOMPLISH	DEGREE OF ACCOMPLISHMENT				
		VERY POOR	POOR	AVERAGE	GOOD	EXCELLENT
When using questions during the lesson did the teacher:						
1. ask various types of questions? (e.g., required responses based on recall, making a comparison or judgment, expressing an attitude)	☐	☐	☐	☐	☐	☐
2. ask a question, pause to allow students time to think about the question, then call on a specific student giving him time to think before making a response?	☐	☐	☐	☐	☐	☐
3. present the questions in a logical sequence? (e.g., questions were organized so students could follow the line of thought)	☐	☐	☐	☐	☐	☐
4. ask questions which were clear and short enough to remember? (e.g., contained only one major idea)	☐	☐	☐	☐	☐	☐
5. direct questions so that each student had an opportunity to participate?	☐	☐	☐	☐	☐	☐

	DID NOT ACCOMPLISH	DEGREE OF ACCOMPLISHMENT				
		VERY POOR	POOR	AVERAGE	GOOD	EXCELLENT
6. react favorably toward students' answers? (e.g., acknowledged answers, avoided repeating students' answers unnecessarily)	☐	☐	☐	☐	☐	☐
7. ask questions which could be answered from students' past experiences or knowledge?	☐	☐	☐	☐	☐	☐
8. phrase questions so they required more than a "yes" or "no" answer?	☐	☐	☐	☐	☐	☐
9. encourage students to expand their answers? (i.e., back up ideas with facts or illustrations)	☐	☐	☐	☐	☐	☐

Teacher's Name _____ Number _____

Tape No. _____ Teach No. _____

Rater (TE,T,S) _____

CRITIQUE FORM
LESSON CLOSURE

Lesson closure which involves the students can be one of the most effective teaching techniques. It can serve as a learning experience not only for the students but also for the teacher by helping him determine what the students have learned and what they need to learn.

The following items will be used to evaluate the teacher's closure of the lesson. If the teacher did not accomplish the item, put an X in the box below DID NOT ACCOMPLISH. If the teacher did accomplish the item, put an X in the box which best describes HOW WELL the teacher ACCOMPLISHED the item.

DID NOT ACCOMPLISH	DEGREE OF ACCOMPLISHMENT				
	VERY POOR	POOR	AVERAGE	GOOD	EXCELLENT

Did the teacher in the closure:

1.	provide an opportunity for the students to explain in their own words the main points of the lesson? (e.g., assisted the students in summarizing the lesson)	☐	☐	☐	☐	☐	☐
2.	give the students an opportunity to ask questions, make comments, or express ideas? (e.g., was receptive to student ideas and opinions)	☐	☐	☐	☐	☐	☐
3.	make use of students' answers, comments, and/or ideas to clarify any confusion concerning the main points of the lesson? (e.g., tied main ideas together so they were easy to understand)	☐	☐	☐	☐	☐	☐
4.	emphasize only the main ideas covered in the lesson presentation? (e.g., avoided introducing any new major ideas during the closure)	☐	☐	☐	☐	☐	☐
5.	provide continuity between this lesson and future lessons or experiences? (e.g., left the students with a feeling of achievement and a sense of direction)	☐	☐	☐	☐	☐	☐

APPENDIX B

CRITIQUE FORMS--MICRO-SUPERVISION SESSIONS

INTRODUCTION OF A CONFERENCE

BODY OF A CONFERENCE

CLOSURE OF A CONFERENCE

Teacher Educator's Name

Teacher's Name _____ Conf. No. _____

Rater (MTE,TE,T) _____ Tape No. _____

CRITIQUE FORM
INTRODUCTION OF A CONFERENCE

The introduction phase of a supervisory conference "sets the stage" for teacher involvement in the body of the conference. The introduction should motivate the teacher to accomplish the objectives of the conference.

The following items will be used to evaluate the teacher educator's introduction of the conference. If the teacher educator did not accomplish the item, put an X in the box below DID NOT ACCOMPLISH. If the teacher educator did accomplish the item, put an X in the box which best describes HOW WELL the teacher educator ACCOMPLISHED the item.

Did the teacher educator in the introduction of the conference:

	DID NOT ACCOMPLISH	HOW WELL ACCOMPLISHED				
		VERY POOR	POOR	AVERAGE	GOOD	EXCELLENT
1. provide an appropriate physical setting? (e.g., quiet, private, comfortable atmosphere)	☐	☐	☐	☐	☐	☐
2. have all the necessary materials ready for use? (e.g., critique forms, aids, tape recordings)	☐	☐	☐	☐	☐	☐
3. exhibit behavior designed to relieve tension in the teacher? (e.g., informal, relaxed, and accepting in manner)	☐	☐	☐	☐	☐	☐
4. communicate to the teacher the purpose of the conference?	☐	☐	☐	☐	☐	☐
5. relate the objectives of the conference to previous conferences or experiences?	☐	☐	☐	☐	☐	☐
6. make a smooth transition into the body of the conference?	☐	☐	☐	☐	☐	☐

Teacher Educator's Name

Teacher's Name _____ Conf. No. _____

Rater (MTE,TE,T) _____ Tape No. _____

CRITIQUE FORM
BODY OF CONFERENCE

Most of the discussion, planning, and evaluation should take place during the body of the supervisory conference. It should be a time of teacher involvement and cooperative endeavor.

The following items will be used to evaluate how the teacher educator conducts the body of the conference. If the teacher educator did not accomplish an item, put an X in the box below DID NOT ACCOMPLISH. If the teacher educator did accomplish the item, put an X in the box which best describes HOW WELL the teacher educator ACCOMPLISHED the item.

DID NOT ACCOMPLISH	HOW WELL ACCOMPLISHED				
	VERY POOR	POOR	AVERAGE	GOOD	EXCELLENT

During the body of the conference did the teacher educator:

1. give the teacher an opportunity to express his ideas about his teaching performance? (e.g., guided the teacher in self-evaluation) ☐ ☐ ☐ ☐ ☐ ☐

2. identify a pattern of teaching behavior, and bring it to the teacher's attention? (e.g., substantiate the teaching behavior with tape recordings, records, aids, etc.) ☐ ☐ ☐ ☐ ☐ ☐

3. offer constructive criticism in an empathetic manner? (e.g., was specific in evaluation of the teacher's strengths and weaknesses) ☐ ☐ ☐ ☐ ☐ ☐

4. originate and suggest new ideas without dominating the teacher's thoughts and actions? ☐ ☐ ☐ ☐ ☐ ☐

5. encourage the teacher to do creative thinking and planning? (e.g., was receptive to teacher's ideas) ☐ ☐ ☐ ☐ ☐ ☐

DID NOT ACCOMPLISH	HOW WELL ACCOMPLISHED				
	VERY POOR	POOR	AVERAGE	GOOD	EXCELLENT
6. suggest only one or two items on which the teacher should concentrate his efforts for improvement? (e.g., did not confuse the teacher with too many ideas at one time)	☐	☐	☐	☐	☐
7. follow a logical sequence? (e.g., in discussion, review of recordings, etc.)	☐	☐	☐	☐	☐
8. make good use of available time? (e.g., kept on topic, wasted no time on extraneous talk)	☐	☐	☐	☐	☐

Teacher Educator's Name

Teacher's Name _____ Conf. No. _____

Rater (MTE,TE,T) _____ Tape No. _____

CRITIQUE FORM
CLOSURE OF CONFERENCE

In addition to pulling together the major points of the conference and acting as a link between past and future experiences, the closure should leave the teacher with a feeling of achievement.

The following items will be used to evaluate the teacher educator's closure of the conference. If the teacher educator did not accomplish the item, put an X in the box below DID NOT ACCOMPLISH. If the teacher educator did accomplish the item, put an X in the box which best describes HOW WELL the teacher educator ACCOMPLISHED the item.

DID NOT ACCOMPLISH	HOW WELL ACCOMPLISHED				
	VERY POOR	POOR	AVERAGE	GOOD	EXCELLENT

During the closure of the conference did the teacher educator:

1. involve the teacher in reviewing the major points discussed? (e.g., stressed important ideas and clarified any misunderstandings) ☐ ☐ ☐ ☐ ☐ ☐

2. give the teacher an opportunity to determine and express future objectives? (e.g., reached an agreement on next steps to be taken) ☐ ☐ ☐ ☐ ☐ ☐

3. keep a record of agreements reached and make sure the teacher had a comparable record? ☐ ☐ ☐ ☐ ☐ ☐

4. reinforce desirable behavior patterns that had been identified? (e.g., ended the conference on an encouraging note and left the teacher with a feeling of accomplishment) ☐ ☐ ☐ ☐ ☐ ☐

APPENDIX C

TEACHER EDUCATOR FORMS

SATISFACTION FORM

EVALUATION FORM

Name _____ No. _____
Treatment _____
(Individual or Group Conference)

SATISFACTION FORM

The purpose of this instrument is to allow you to rate the following statements to describe your feelings toward the method of supervision which you experienced.

Directions: If the method of supervision did not help you accomplish the item, put an X in the box below DID NOT ACCOMPLISH. If the method of supervision did help you accomplish the item, put an X in the box which best describes the DEGREE OF ACCOMPLISHMENT.

	DEGREE OF ACCOMPLISHMENT				
DID NOT ACCOMPLISH	VERY POOR	POOR	AVERAGE	GOOD	EXCELLENT
The method of supervision:					
1. helped me look at my supervisory skills objectively.	☐	☐	☐	☐	☐
2. provided adequate opportunity for the teacher and me to exchange ideas.	☐	☐	☐	☐	☐
3. stimulated me to do my best work.	☐	☐	☐	☐	☐
4. helped me put educational theory into practice.	☐	☐	☐	☐	☐
5. provided adequate opportunity for the master teacher educator and me to exchange ideas.	☐	☐	☐	☐	☐
6. encouraged me to feel like a co-educator along with the master teacher educator.	☐	☐	☐	☐	☐
7. gave the master teacher educator a representative picture of my supervisory skills.	☐	☐	☐	☐	☐
8. gave me an opportunity to feel successful.	☐	☐	☐	☐	☐
9. helped to establish a relaxed, open mood of mutuality between me and the master teacher educator.	☐	☐	☐	☐	☐

	DID NOT ACCOMPLISH	DEGREE OF ACCOMPLISHMENT				
		VERY POOR	POOR	AVERAGE	GOOD	EXCELLENT
10. stimulated self-analysis of my own performance.	☐	☐	☐	☐	☐	☐
11. helped to establish a relaxed, open mood of mutuality between the teacher and myself.	☐	☐	☐	☐	☐	☐
12. helped me improve my supervisory skills.	☐	☐	☐	☐	☐	☐
13. provided a good evaluation of my supervisory skills.	☐	☐	☐	☐	☐	☐
14. increased my use of a variety of supervisory skills.	☐	☐	☐	☐	☐	☐
15. was satisfactory once the procedures and working relationships were established.	☐	☐	☐	☐	☐	☐

Name _____ No. _____

EVALUATION FORM

Your help is needed in revising the procedures and materials used in the study for preparing teacher educators. Please answer the following questions as objectively as possible.

1. As a result of your observation and/or participation using micro-teaching (5 minute lessons with high school students), what is your present evaluation of its use?

2. As a result of your use of videotape recording, what is your present evaluation of it as a tool for preparing teachers and/or teacher educators?

3. What changes would you suggest be made in the procedures used in this project for

   A. teachers?

   B. teacher educators?

   C. videotape feedback?

   D. orientation of participants?

4. Did you feel the supervisory conference critique forms were of value to the teacher educator in developing supervisory skills?

(circle one) YES NO

Explain:

5. List any items on the supervisory conference critique forms that you feel should be

A. restated (please restate).

B. eliminated.

C. added.

Explain the reasons for your suggestions.

6. Would you recommend supervisory training such as this to other teacher educators?

(circle one) YES NO

Explain:

7. Explain your feelings toward the supervisory treatment you received (group or individual conferences with the master teacher educator).

8. If you were going to conduct a project such as this, what would you include that was not done this time?

APPENDIX D

TABLES

TABLE 1
PRETEST MEAN RAW SCORES AND STANDARD DEVIATIONS
CRITIQUE FORMS ON SUPERVISORY SKILLS
BOTH SCALES

SUPERVISORY SKILL	SCALE	GROUP (N=6)	MEAN SCORE	S.D.
Introduction of a Conference[a]	Accomplished	Individual (1)	5.417	.970
		Group (2)	4.167	.983
	Degree of Accomplishment	Individual (1)	18.750	3.489
		Group (2)	14.750	3.504
Body of a Conference[b]	Accomplished	Individual (1)	6.917	.204
		Group (2)	7.000	.000
	Degree of Accomplishment	Individual (1)	22.000	1.612
		Group (2)	22.583	2.223
Closure of a Conference[c]	Accomplished	Individual (1)	3.250	.274
		Group (2)	2.333	.683
	Degree of Accomplishment	Individual (1)	9.917	1.320
		Group (2)	7.333	2.787
Composite of Three Skills[d]	Accomplished	Individual (1)	15.583	1.068
		Group (2)	13.500	1.225
	Degree of Accomplishment	Individual (1)	50.667	5.037
		Group (2)	44.667	5.989

[a] 6 items on instrument; raw scores on Accomplished Scale ranged from 0-6; on Degree of Accomplishment Scale, 0-30.

[b] 8 items on instrument; raw scores on Accomplished Scale ranged from 0-8; on Degree of Accomplishment Scale, 0-40.

[c] 4 items on instrument; raw scores on Accomplished Scale ranged from 0-4; on Degree of Accomplishment Scale, 0-20.

[d] 18 total items; raw scores on Accomplished Scale ranged from 0-18; on Degree of Accomplishment Scale, 0-90.

TABLE 2
ANALYSIS OF VARIANCE
CRITIQUE FORMS ON SUPERVISORY SKILLS
PRETEST DATA, N=12

SUPERVISORY SKILL	SCALE	SOURCE	S.S.	M.S.	d.f.	F
Introduction of a Conference	Accomplished	Between Groups	4.688	4.688	1	4.91
		Within	9.542	.954	10	
	Degree of Accomplishment	Between Groups	48.000	48.000	1	3.93
		Within	122.250	12.225	10	
Body of a Conference	Accomplished	Between Groups	.021	.021	1	1.00
		Within	.208	.021	10	
	Degree of Accomplishment	Between Groups	1.021	1.021	1	.27
		Within	37.708	3.771	10	
Closure of a Conference	Accomplished	Between Groups	2.521	2.521	1	9.31*
		Within	2.708	.271	10	
	Degree of Accomplishment	Between Groups	20.021	20.021	1	4.21
		Within	47.542	4.754	10	
Composite of Three Skills	Accomplished	Between Groups	13.021	13.021	1	9.86*
		Within	13.208	1.321	10	
	Degree of Accomplishment	Between Groups	108.000	108.000	1	3.53
		Within	306.167	30.617	10	

*Significant at .05 level if $\geq$ 4.96.

TABLE 3
POSTTEST MEAN RAW SCORES, ADJUSTED MEANS, AND STANDARD ERROR
CRITIQUE FORMS ON SUPERVISORY SKILLS
BOTH SCALES

SUPERVISORY SKILL	SCALE	GROUP (N=6)	MEAN	ADJUSTED MEAN	S.E. ADJ. MEAN
Introduction of a Conference[a]	Accomplished	Individual (1)	5.750	5.671	.156
		Group (2)	5.667	5.746	
	Degree of Accomplishment	Individual (1)	21.917	21.708	.659
		Group (2)	20.417	20.625	
Body of a Conference[b]	Accomplished	Individual (1)	6.917	6.958	.081
		Group (2)	6.833	6.792	
	Degree of Accomplishment	Individual (1)	26.083	26.318	.665
		Group (2)	25.417	25.182	
Closure of a Conference[c]	Accomplished	Individual (1)	2.500	2.472	.244
		Group (2)	2.917	2.945	
	Degree of Accomplishment	Individual (1)	9.917	9.775	.931
		Group (2)	11.000	11.142	
Composite of Three Skills[d]	Accomplished	Individual (1)	15.167	14.858	.257
		Group (2)	15.417	15.726	
	Degree of Accomplishment	Individual (1)	57.917	56.376	1.306
		Group (2)	56.833	58.374	

[a]6 items on instrument; raw scores on Accomplished Scale ranged from 0-6; on Degree of Accomplishment Scale, 0-30.

[b]8 items on instrument; raw scores on Accomplished Scale ranged from 0-8; on Degree of Accomplishment Scale, 0-40.

[c]4 items on instrument; raw scores on Accomplished Scale ranged from 0-4; on Degree of Accomplishment Scale, 0-20.

[d]18 total items; raw scores on Accomplished Scale ranged from 0-18; on Degree of Accomplishment Scale, 0-90.

TABLE 4
ANALYSIS OF COVARIANCE
CRITIQUE FORMS ON SUPERVISORY SKILLS
POSTTEST DATA, N=12
(PRETEST DATA USED AS COVARIATE)

SUPERVISORY SKILL	SCALE	SOURCE	S.S.	M.S.	d.f.	F*
Introduction of a Conference	Accomplished	Between Groups	.011	.011	1	.10
		Within	1.055	.117	9	
	Degree of Accomplishment	Between Groups	2.526	2.526	1	1.16
		Within	19.587	2.176	9	
Body of a Conference	Accomplished	Between Groups	.076	.076	1	2.05
		Within	.333	.037	9	
	Degree of Accomplishment	Between Groups	3.765	3.765	1	1.44
		Within	23.583	2.620	9	
Closure of a Conference	Accomplished	Between Groups	.348	.348	1	1.43
		Within	2.198	.244	9	
	Degree of Accomplishment	Between Groups	3.941	3.941	1	.92
		Within	28.638	4.293	9	
Composite of Three Skills	Accomplished	Between Groups	1.138	1.138	1	4.30
		Within	2.380	.265	9	
	Degree of Accomplishment	Between Groups	8.856	8.856	1	1.02
		Within	78.277	8.697	9	

*Significant at .05 level if $\geq$ 4.96.

TABLE 5
PAIRED t-TEST
CRITIQUE FORMS ON SUPERVISORY SKILLS
DEGREE OF ACCOMPLISHMENT SCALE

SUPERVISORY SKILL	GROUP (N=6)	MEANS Pretest	MEANS Posttest	STANDARD DEVIATIONS Pretest	STANDARD DEVIATIONS Posttest	t
Introduction of a Conference	Individual (1)	18.75	21.92	3.19	1.43	2.15
	Group (2)	14.75	20.42	3.20	1.20	4.27*
Body of a Conference	Individual (1)	22.00	26.08	1.47	1.67	5.83*
	Group (2)	22.58	25.42	2.03	2.28	4.83*
Closure of a Conference	Individual (1)	9.92	9.92	1.20	1.30	.00
	Group (2)	7.33	11.00	2.54	2.20	3.00*
Composite of Three Skills	Individual (1)	50.67	57.92	4.60	2.09	5.01*
	Group (2)	44.67	56.83	5.47	4.71	7.11*

*Significant at .05 level if $\geq$ 2.57.

TABLE 6
MEAN SCORES AND STANDARD DEVIATIONS
SATISFACTION FORM
DEGREE OF ACCOMPLISHMENT SCALE

GROUP (N=6)	MEAN SCORE	S.D.
Individual Conference	4.348	.539
Group Conference	4.166	.397

TABLE 7
ANALYSIS OF VARIANCE
SATISFACTION FORM
DEGREE OF ACCOMPLISHMENT SCALE
N=12

SOURCE	S.S.	M.S.	d.f.	F*
Between Groups	.099	.099	1	.44
Within	2.243	.224	10	

*Significant at .05 level if $\geq$ 4.96.